Two kindergarten students’ responses to the following question are given below.

If you had four chocolates and someone gave you three more, how many would you have altogether?

*Alex responds by scrunching up his brow momentarily and saying, “seven.” When asked how he figured it out, he says, “Well, four and four is eight [displaying four fingers on one hand and four on the other hand to demonstrate]. But we only need three more [taking away one finger from one hand to demonstrate]. So I went –seven, eight. Seven is one less than eight. So the answer is seven.”*

*Sean responds by putting up four fingers on one hand and saying (under his breath), “Four. Then three more – five, six, seven” In a normal tone of voice, Sean says, “Seven.” When asked how he figured it out, Sean is able to articulate his strategy, saying, “I started at four and counted –five, six, seven (tapping the table three times as he counts up, to indicate the quantity added to the initial set).*

What knowledge do these children have that enables them to come up with the answer in the first palace and demonstrates some fo the concepts on the slide?

**Precursors to Fluency**

* The sequence of number names, both starting at 1 and not starting at 1
* How to count a set, keeping track of the items they counted
* Understanding relationships of more, less , and same
* Skip counting starting from 1 and from other numbers
* Cardinality
* Conservation
* 1-to-1 correspondence
* Making tens – link to understanding place value
* Subitizing
* Decomposing and composing numbers
* Understanding part-part-whole